Name: ..... **Class:** .....

Task 1

Encryption is used to prevent unauthorised people from reading the contents of files and communications.

Complete the table below to explain how encryption is used in different circumstances in your personal life, home and school.

Type of encryption	How this is used in your personal life, home and school
Encryption of transmitted data	
Encryption of individual files	
Encryption of drives	

Task 2

1. Fill in the blanks with the words beneath the text.

   Firewalls are available as a special hardware device or as _____. A firewall will block _____of information that are from certain malicious IP addresses. It can also block packets that are for _____that are not used. When packets are blocked from entering a computer or network they are said to be _____. A firewall can look at the data inside each packet of data. This is known as _____. Computers that are protected by the firewall are part of the _____.

Dropped Packets	**Packet inspection Ports**	**Software Trusted network**

2. User access levels allow different users the ability to access different parts of a system. For files, certain users may be given read, write or execute permissions.

   Explain what each of these permissions allow a user or group of users to do with a file.

Read

Write

Execute

Task 3

There are many ways that companies and people can protect their computer systems and data.

Look at the table below and match the methods on the left with their meanings on the right.

Method of protecting computer systems and data	Meaning
Encrypting stored data	A string of characters used to gain access to a computer system
Anti-malware software	A company or person employed to try and find security holes in a system
Passwords	Files stored in an encoded format that cannot be decoded without a key or password
Encrypting communications	Prevents viruses, spyware, Trojans, worms and other malicious software
Penetration testing	Prevents users from accessing files or resources
Firewalls	Prevents certain packets of data from entering the network
User access levels	Using methods such as HTTPS (secure HTTP) for website access or WPA (Wi-Fi Protected Access) for wireless connections
Physical security	Any device that prevents people accessing computer hardware, software or networks – such as CCTV or locks

Task 4

Go to: https://www.my1login.com/resources/password-strength-test/

(a) Complete the table below to explain the problems with the suggested passwords.

Password	Problems with password
password	
123456	
trustno1	
passw0rd	
Passw0	
jctbbqjc	
JcT3£BBQ	
[Try a password that you have previous used – **DO NOT USE A CURRENT PASSWORD**]	

(b) Suggest at least **three** rules that can be made to make strong passwords.

1.

2.

3.